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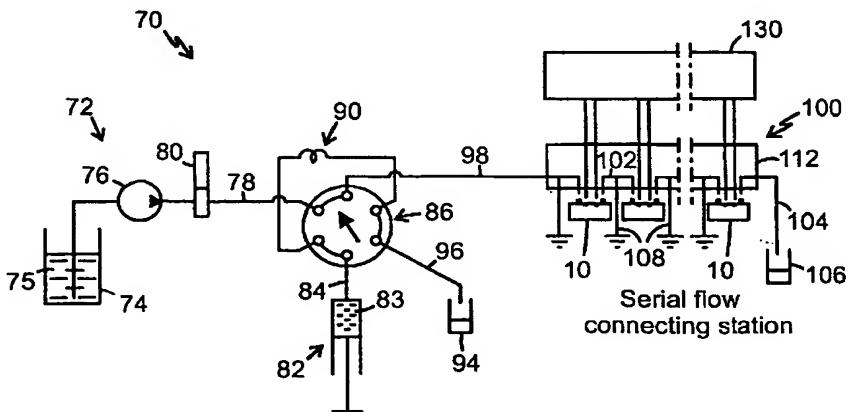
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(54) Title: SYSTEM, DEVICE AND METHOD FOR DETECTION OF SEVERAL INDIVIDUAL ANALYTES IN A SOLUTION, AND A DISPOSABLE FLOW CELL FOR USE THEREIN



WO 2004/001392 A1

(57) Abstract: A system, device and method for detection of several individual analytes in a test solution aliquot (83) with an array of individually operated piezoelectric crystal microbalances are described. The system comprises a connecting station (100) that receives a plurality of individually specific piezoelectric crystal microbalance flow-trough cells (10), each containing a piezoelectric crystal (50) carrying electrodes (56,62) and a coating (66,46) exposing a first member of an interaction pair specific for an individual analyte being a second member of the interaction pair. Flowing means (70) flows a solution (75) and the test solution aliquot (83) to and through a cell compartment of each of the cells (10) via the connecting station (100). Power and measurement means (130) oscillate the piezoelectric crystal(s) (50). A change in oscillating characteristics of the crystal(s) (50), following interaction between the first and second members of the interaction pair, detects presence of the individual analyte(s). Further, disposable flow cells (10) for use in an array of individually operated piezoelectric crystal microbalances (112) is described.



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INTERNATIONAL SEARCH REPORT

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PCT/SE 03/01038

A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4789804 A (I.KARUBE ET AL), 6 December 1988 (06.12.88), figures 6,14-16, claims 1,2,6,32-39	1-5,9,15-21
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A	--	6-8,10-14,25
X	US 6196059 B1 (C.KÖSSLINGER ET AL), 1 March 2001 (01.03.01), column 8, line 49 - line 55; column 6, line 17 - line 28	22-23
Y	--	24,26-34
A	US 5494639 A (A.GRZEGORZEWSKI), 27 February 1996 (27.02.96), abstract	1-34
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 Further documents are listed in the continuation of Box C. See patent family annex.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5945774 A (MING-CHANG CHIH ET AL), 31 August 1999 (31.08.99), abstract --	1-34
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INTERNATIONAL SEARCH REPORT
Information on patent family members

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